



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,758	04/13/2004	Jin Woong Kim	2832-0177PUS1	2905

2292 7590 03/20/2008  
BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
----------

HECKERT, JASON MARK

ART UNIT	PAPER NUMBER
----------	--------------

1792

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

03/20/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/822,758	<b>Applicant(s)</b> KIM ET AL.	
	<b>Examiner</b> JASON HECKERT	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 12/26/07 have been fully considered but they are not persuasive. Applicant argues that Nakamura is not relevant prior art due to the fact that his disclosure is related to a vertical axis washer. The examiner does not agree. Nakamura's teachings are considered to be relevant to the art of washing clothes, independent of the axis of the machine. One of ordinary skill in the art would understand that injecting steam onto any wash load will have benefits of partial washing with less detergent and fluid just as Nakamura describes. Additionally, one of ordinary skill in the art is capable of modifying a horizontal axis machine to receive steam. Sulzmann shows a horizontal axis machine receiving steam. Merely changing the location of the steam pipe from a bottom of the tub to a top of the tub only requires a rearrangement of previously disclosed parts, which has been held to be obvious. The claimed elements were known in the prior art and the combination would have yielded predictable washing results to one of ordinary skill in the art at the time of the invention.
2. Examiner withdraws the obvious double patenting rejection in view of 11/723661.
3. Due to the applicant's amendments to the claims, the previous rejections are rendered moot.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1792

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 - 35 rejected under 35 U.S.C. 103(a) as being unpatentable over Sulzmann in view of Nakamura. Sulzmann discloses a washing step as well as a steam supplying step for a washing machine. The steam supply is used during washing to maintain a desired temperature (page 3 lines 20-60). Sulzmann also discloses a first wetting step, wherein the water level is lower than the final level. More fluid is then added during the washing step (page 3 lines 64-71). Water addition is based on predetermined values for washing. Water and steam are supplied to the tub at the same time. Sulzmann discloses using a control scheme with a thermometer in order to control steam generation (page 3 line 117- 130). Steam injection ceases when the wash water reaches a predetermined temperature. Steam is generated and inputted for a predetermined time. Water is circulated throughout the tub continuously. Heating means are disclosed for the steam generator. Sulzmann does not disclose supplying wash water from a top portion of the tub; however this is known in the art and not considered to be a patentably distinct feature. It would have been obvious at the time of the invention to modify Sulzmann, and supply water from the top of the tub, as it is a known method of water supply in the art which only requires rearrangement of the water inlet pipe. Rearrangement of parts was held to have been obvious. *In re Japikse* 86 USPQ 70 (CCPA 1955). Sulzmann does not disclose injecting the steam from the top of the drum in order to heat the clothes. Nakamura shows that a separate tank for the creation of steam with a heating element is known (see abstract). Additionally, Nakamura discloses injecting the steam from above so as to heat the clothes, thereby

Art Unit: 1792

requiring less detergent and increasing washing effectiveness with minimal agitation (paragraph 0030). Sulzmann shows a horizontal axis machine receiving steam. Merely changing the location of the steam pipe from a bottom of the tub to a top of the tub only requires a rearrangement of previously disclosed parts, which has been held to be obvious. In regards to claim 4, the inclusion of a level sensor and monitoring water level in a steam generator is not considered to be a patentably distinct feature. If the heating element is not submerged, the device can malfunction. One of ordinary skill in the art would see this as scenario that would be desirable to avoid, and a water level sensor is a known device that can ensure that the heating element is submerged and that the water is limited to a predetermined level. In regards to claims 5-6, 15-16 Sulzmann already discloses supplying steam while water is supplied to the tub. Nakamura discloses that when the conditions are sufficient, such as temperature and pressure, steam is injected, as well as simultaneously stopping the supply of steam when the water supply is stopped when water is at a certain level. Steam generation can also continue after operation of the heater has ceased, due to the fact that conditions in side the generator allow for the release of remaining steam. In regards to claims 7 and 17, water is resupplied to Nakamura's generator at a variety of temperatures, any of them readable on predetermined. As stated previously, inclusion and operation of a water level sensor is not a patentably distinct feature. In regards to claims 8 and 18, shutting off the heater, and therefore eliminating the production of more steam, would be a desirable feature to one skilled in the art due to the fact that too much pressure could cause the device to malfunction. Sulzmann already discloses a pressure regulation

Art Unit: 1792

gauge (page 4 lines 18-22). In regards to claims 10-13 and 19-23, Sulzmann already discloses said control features, as stated above. It would have been obvious at the time of the invention to substitute the steam generation means of Nakamura in place of Sulzmann's steam generation unit, as it is a functionally equivalent device that was known at the time of the invention that creates steam for injection into a washing machine in order to increase wash effectiveness. The claimed elements were known in the prior art and the combination would have yielded predictable washing results to one of ordinary skill in the art at the time of the invention (see KSR v Teleflex).

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/  
Supervisory Patent Examiner, Art  
Unit 1792

JMH